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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/790,603 | 03/02/2004 | Shang-Neng Wu | 3426W | 9144 |

7590 11/05/2004
Robert O. Blinn
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EXAMINER

SANTOS, ROBERT G

ART UNIT PAPER NUMBER

3673

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,603

Applicant(s)

WU, SHANG-NENG

Examiner

Robert G. Santos

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>03022004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-6 are objected to because of the following informalities:
 - 1) In claim 1, lines 5 and 6: The term --said-- should be inserted before the second instance of the term “at”.
 - 2) In claim 1, lines 6 and 7: The term “an” should be changed to --said--.
 - 3) In claim 1, line 17 & 25 and in claim 2, lines 16 & 23: The term --port-- should be inserted after the term “intake”.
 - 4) In claim 1, lines 18 & 24 and in claim 2, lines 17 & 23: The term --port-- should be inserted after the term “exhaust”.
 - 5) In claim 1, line 19: The term “ports” should be changed to --port--.
 - 6) In claim 2, line 22: The term --said-- should be inserted before the term “at”.
 - 7) In claim 3, line 1; claim 5, lines 12 & 14; and in claim 6, lines 15 & 17: The phrase --air mattress supply-- should be inserted before the term “line”.
 - 8) In claim 4, line 2: The term “as” should be changed to --has--.
 - 9) In claim 4, lines 5 & 9; claim 5, lines 5, 8, 12 & 13; and in claim 6, lines 15 & 17: The phrase “electronically controlled should be inserted before the term “valve”.
 - 10) In claim 4, line 7: The phrase “at least” should be deleted.
 - 11) In claim 4, line 8: The term “one” should be deleted.

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12) In claim 4, line 9: The phrase "at least one" should be deleted.

13) In claim 4, line 10: The term "indicate" should be changed to

--indicates--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Johnson et al. '595 (note especially Figures 1-10; column 10, lines 18-68; column 14; and column 15, lines 1-4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al. '595 in view of U.S. Pat. No. 4,949,414 to Thomas et al. Johnson et al. do not specifically disclose the use of an electrically controlled valve in the at least one air

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mattress supply line (54-59); a pressure sensor interposed between the electrically controlled valve and the at least one chamber (109) of the air mattress (110); a control unit operatively connected to the pressure sensor such that the electrically controlled valve receives signals from the pressure sensor and responds to those signals by opening or closing the electronically controlled valve until the pressure sensor indicates a predetermined pressure; and wherein the programmable control unit receives pressure signals from the pressure sensor and responds to those signals by (1) determining if the pressure signal indicates if a pressure is within a selected range of pressures or above or below a selected range of pressures, (2) transmitting a signal to incrementally close the electronically controlled valve if the pressure in the at least one air mattress supply line is above the selected range of pressures, (3) transmitting a signal to incrementally open the electronically controlled valve if the pressure in the at least one air mattress supply line is below the selected range of pressures. Thomas et al. '414 provide the basic teaching of an air flow control system comprising an electrically controlled valve (162) in at least one air mattress supply line; a pressure sensor (186) interposed between the electrically controlled valve and at least one chamber (34) of an air mattress; a control unit (160) operatively connected to the pressure sensor such that the electrically controlled valve receives signals from the pressure sensor and responds to those signals by opening or closing the electronically controlled valve until the pressure sensor indicates a predetermined pressure (as described in column 20, lines 45-68 and in column 21, lines 1-9); and wherein the programmable control unit (160) receives pressure signals from the pressure sensor and responds to those signals by (1) determining if the pressure signal indicates if a pressure is within a selected range of pressures or above or below a selected

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range of pressures, (2) transmitting a signal to incrementally close the electronically controlled valve if the pressure in the at least one air mattress supply line is above the selected range of pressures, (3) transmitting a signal to incrementally open the electronically controlled valve if the pressure in the at least one air mattress supply line is below the selected range of pressures (as described in column 22, lines 46-68 and in column 23, lines 1-2). The skilled artisan would have found it obvious to provide the air flow control system of Johnson et al. '595 with the use of an electrically controlled valve in the at least one air mattress supply line; a pressure sensor interposed between the electrically controlled valve and the at least one chamber of the air mattress; a control unit operatively connected to the pressure sensor such that the electrically controlled valve receives signals from the pressure sensor and responds to those signals by opening or closing the electronically controlled valve until the pressure sensor indicates a predetermined pressure; and wherein the programmable control unit receives pressure signals from the pressure sensor and responds to those signals by (1) determining if the pressure signal indicates if a pressure is within a selected range of pressures or above or below a selected range of pressures, (2) transmitting a signal to incrementally close the electronically controlled valve if the pressure in the at least one air mattress supply line is above the selected range of pressures, (3) transmitting a signal to incrementally open the electronically controlled valve if the pressure in the at least one air mattress supply line is below the selected range of pressures in order to ensure more readily proper support for a user positioned on the air mattress.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wu '181, Wu '046, Stacy '825, Hand et al. '144, Hand et al. '814, Lin '833, Lin '402, Lin '176, Hand et al. '222, Chapman et al. '538, Hannagan et al. '934, Hand et al. '754, Thomas et al. '466 and Tringali et al. '837.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert G. Santos whose telephone number is (703) 308-7469. The examiner can normally be reached on Tues-Fr and first Mondays, 10:30 a.m. to 8:00 p.m..

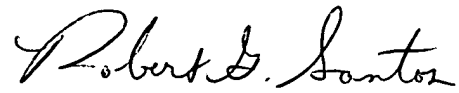
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on (703) 308-2978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in cursive script that reads "Robert G. Santos".

Robert G. Santos
Primary Examiner
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R.S.

November 2, 2004